Volume 158, 1999

Toxicology and Applied Pharmacology

AN OFFICIAL JOURNAL OF
THE SOCIETY OF TOXICOLOGY

ACADEMIC PRESS

Copyright © 1999 by Academic Press
All rights reserved

No part of this publication may be reproduced or transmitted in any form, or by any means, electronic or mechanical, including photocopy, recording, or any information storage and retrieval system, without permission in writing from the Publisher. *Exceptions:* Explicit permission from Academic Press is not required to reproduce a maximum of two figures or tables from an Academic Press article in another scientific or research publication provided that the material has not been credited to another source and that full credit to the Academic Press article is given. In addition, authors of work contained herein need not obtain permission in the following cases only: (1) to use their original figures or tables in their future works; (2) to make copies of their papers for use in their classroom teaching; and (3) to include their papers as part of their dissertations.

The appearance of the code at the bottom of the first page of an article in this journal indicates the Publisher's consent that copies of the article may be made for personal or internal use, or for the personal or internal use of specific clients. This consent is given on the condition, however, that the copier pay the stated per copy fee through the Copyright Clearance Center, Inc. (222 Rosewood Drive, Danvers, Massachusetts 01923), for copying beyond that permitted by Sections 107 and 108 of the U.S. Copyright Law. This consent does not extend to other kinds of copying, such as copying for general distribution, for advertising or promotional purposes, for creating new collective works, or for resale. Copy fees for pre-1999 articles are as shown on the article title pages; if no fee code appears on the title page, the copy fee is the same as for current articles.

0041-008X/99 $30.00

MADE IN THE UNITED STATES OF AMERICA

This journal is printed on acid-free paper.

CONTENTS OF VOLUME 158

Number 1, July 1, 1999

The Existence of the 4S Polycyclic Aromatic Hydrocarbon-Protein Binding in 14-Day-Old Chick Embryo Liver
Abhijit Raha, Joshua W. Hamilton, and Edward Bresnick 1

Enzymatic Methylation of Arsenic Compounds. VII. Monomethylarsonous Acid (MMA^{III}) Is the Substrate for MMA Methyltransferase of Rabbit Liver and Human Hepatocytes
Robert A. Zakharyan, Felix Ayala-Fierro, William R. Cullen, Dean M. Carter, and H. Vasken Aposhian 9

Gestational Exposure to Chlorpyrifos: Comparative Distribution of Trichloropyridinol in the Fetus and Dam
D. L. Hunter, T. L. Lassiter, and S. Padilla 16

Uterotrophic Effects of Tamoxifen, Toremifene, and Raloxifene Do Not Predict Endometrial Cell Proliferation in the Ovariectomized CD1 Mouse
P. Carthew, R. E. Edwards, and B. M. Nolan 24

A Chimeric Aryl Hydrocarbon Receptor Knockout Mouse Model Indicates That Aryl Hydrocarbon Receptor Activation in Hematopoietic Cells Contributes to the Hepatic Lesions Induced by 2,3,7,8-Tetrachlorodibenzo-*p*-dioxin
T. S. Thurmond, A. E. Silverstone, R. B. Baggs, F. W. Quimby, J. E. Staples, and T. A. Gasiewicz 33

Effect of Lead Exposure and Accumulation on Copper Homeostasis in Cultured C6 Rat Glioma Cells
Yongchang Qian, Ginger Mikeska, Edward D. Harris, Gerald R. Bratton, and Evelyn Tiffany-Castiglioni 41

Structure–Hepatic Disposition Relationships for Phenolic Compounds
George D. Mellick and Michael S. Roberts 50

Quantitative Measurement of Acute Corneal Injury in Rabbits with Surfactants of Different Type and Irritancy
James K. Maurer, Ron D. Parker, W. Matthew Petroll, Gregory J. Carr, H. Dwight Cavanagh, and James V. Jester 61

Peroxisome-Proliferator Regulates Key Enzymes of the Tryptopohan-NAD^+ Pathway
Mariko Shin, Mikiko Ohnishi, Shin Iguchi, Keiji Sano, and Chisae Umezawa 71

Number 2, July 15, 1999

Ambient Air Particles: Effects on Cellular Oxidant Radical Generation in Relation to Particulate Elemental Chemistry
Agasanur K. Prahalad, Joleen M. Soukup, Jefferson Inmon, Robert Willis, Andrew J. Ghio, Susanne Becker, and Jane E. Gallagher 81

Effects of Pre-existing Rhinitis on Ozone-Induced Mucous Cell Metaplasia in Rat Nasal Epithelium
Hye Y. Cho, Jon A. Hotchkiss, Catherine B. Bennett, and Jack R. Harkema 92

Comparative Toxicokinetics of Chlorinated and Brominated Haloacetates in F344 Rats
Irvin R. Schultz, J. L. Merdink, A. Gonzalez-Leon, and Richard J. Bull 103

The Role of Lysosomes in the Cellular Distribution of Thioridazine and Potential Drug Interactions
W. A. Daniel and J. Wójcikowski 115

***In Vitro* and *in Vivo* Study of the Antithyroid Side Effects of Trimeprazine**
M. F. Sauvage, A. Rousseau, P. Marquet, F. Dumeirain, C. Raby, and G. Lachâtre 125

Mechanisms of Chlorophyllin Anticarcinogenesis: Dose–Responsive Inhibition of Aflatoxin Uptake and Biodistribution Following Oral Co-administration in Rainbow Trout
Tetsuhito Hayashi, Michael Schimerlik, and George Bailey 132

Chlorophyllin Chemoprevention in Trout Initiated by Aflatoxin B_1 Bath Treatment: An Evaluation of Reduced Bioavailability vs. Target Organ Protective Mechanisms
Vibeke Breinholt, Dan Arbogast, Pat Loveland, Cliff Pereira, Roderick Dashwood, Jerry Hendricks, and George Bailey 141

Toxicology and Pharmacokinetics of DTGM, a Fusion Toxin Consisting of a Truncated Diphtheria Toxin (DT388) Linked to Human Granulocyte-Macrophage Colony-Stimulating Factor, in Cynomolgus Monkeys
Charlotte E. Hotchkiss, Philip D. Hall, J. Mark Cline, Mark C. Willingham, Robert J. Kreitman, Jean Gardin, Amy Latimer, Jason Ramage, Theodore Feely, Stephen DeLatte, Edward P. Tagge, and Arthur E. Frankel ... 152

Preconception Urethane or Chromium(III) Treatment of Male Mice: Multiple Neoplastic and Non-neoplastic Changes in Offspring
Wei Yu, Marek A. Sipowicz, Diana C. Haines, Lisa Birely, Bhalchandra A. Diwan, Charles W. Riggs, Kazimierz S. Kasprzak, and Lucy M. Anderson 161

Role of Glutathione *S*-transferase 8-8 in Allylamine Resistance of Vascular Smooth Muscle Cells *in Vitro*
Nonggao He, Sharad S. Singhal, Sanjay Awasthi, Tiejun Zhao, and Paul J. Boor 177

Comparative Neurochemical Effects of Repeated Methyl Parathion or Chlorpyrifos Exposures in Neonatal and Adult Rats
Jing Liu, Kenneth Olivier, and Carey N. Pope 186

Modulation of Testosterone-Metabolizing Hepatic Cytochrome P-450 Enzymes in Developing Sprague-Dawley Rats Following *in Utero* Exposure to *p,p'*-DDE
Li You, Sanny K. Chan, Jason M. Bruce, Shannon Archibeque-Engle, Mercedes Casanova, J. Christopher Corton, and Henry d'A. Heck 197

Number 3, August 1, 1999

CONTEMPORARY ISSUES IN TOXICOLOGY

Cancer Chemoprevention: Future Holds in Multiple Agents
Hasan Mukhtar and Nihal Ahmad 207

REGULAR ARTICLES

Antioxidant Treatment Attenuates Cytokine and Chemokine Levels in Murine Macrophages Following Silica Exposure
Edward G. Barrett, Carl Johnston, Günter Oberdörster, and Jacob N. Finkelstein 211

Effects of Glutathione Transferase Theta Polymorphism on the Risk Estimates of Dichloromethane to Humans
Hisham A. El-Masri, Douglas A. Bell, and Christopher J. Portier 221

Developmental Exposure of Rats to a Reconstituted PCB Mixture or Aroclor 1254: Effects on Organ Weights, Aromatase Activity, Sex Hormone Levels, and Sweet Preference Behavior
Jürgen Hany, Hellmuth Lilienthal, Alexander Sarasin, Astrid Roth-Härer, Annemarie Fastabend, Lothar Dunemann, Walter Lichtensteiger, and Gerhard Winneke 231

A Single Dose of the Ovotoxicant 4-Vinylcyclohexene Diepoxide Is Protective in Rat Primary Ovarian Follicles
S. M. Borman, B. J. VanDePol, S. Kao, K. E. Thompson, I. G. Sipes, and P. B. Hoyer 244

Influence of Tumor Necrosis Factor-α and Silibin on the Cytotoxic Action of α-Amanitin in Rat Hepatocyte Culture
Claudia El-Bahay, Elisabeth Gerber, Martina Horbach, Quynh-Hoa Tran-Thi, Elke Röhrdanz, and Regine Kahl 253

Estimation of Systemic Toxicity of Acrylamide by Integration of *in Vitro* Toxicity Data with Kinetic Simulations
J. DeJongh, M. Nordin-Andersson, B. A. Ploeger, and A. Forsby 261

Residual Oil Fly Ash Exposure Enhances Allergic Sensitization to House Dust Mite
Amy L. Lambert, Wumin Dong, Darrell W. Winsett, MaryJane K. Selgrade, and M. Ian Gilmour 269

Cardiovascular Effects of Acute and Chronic Cocaine Administration in Pregnant and Nonpregnant Rabbits
Roy L. Sutliff, Pamela A. Gayheart-Walsten, David L. Snyder, Jay Roberts, and Mark D. Johnson 278

Inhibition of Protein Synthesis by Chromium(VI) Differentially Affects Expression of Urokinase and Its Receptor in Human Type II Pneumocytes
Jennifer A. Shumilla and Aaron Barchowsky 288

Impaired Glutamate Clearance as a Consequence of Energy Failure Caused by MPP^+ in Astrocytic Cultures
Donato A. Di Monte, Irina Tokar, and J. William Langston 296

AUTHOR INDEX FOR VOLUME 158 303

SUBJECT INDEX FOR VOLUME 158 304

CHEMICAL INDEX FOR VOLUME 158 309

All articles are available online at http://www.idealibrary.com.